

**BOBBY JINDAL**  
GOVERNOR



**PEGGY M. HATCH**  
SECRETARY

**State of Louisiana**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**ENVIRONMENTAL SERVICES**

Certified Mail No.

Agency Interest No. 165335  
Activity No.: PER20090001

Mr. David L. Hayden  
Vice President  
Perryville Gas Storage LLC  
Three Riverway, Suite 1350  
Houston, TX 77056

RE: Part 70 Operating Permit, Perryville Gas Storage Project - Crowville Salt Dome, Perryville Gas Storage LLC, Winnsboro, Franklin Parish, Louisiana

Dear Mr. Hayden:

This is to inform you that the permit for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 operating permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the \_\_\_\_\_ of \_\_\_\_\_, 2015, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and Agency Interest number cited above should be referenced in future correspondence regarding this facility.

Please be advised that pursuant to provisions of the Environmental Quality Act and the Administrative Procedure Act, the Department may initiate review of a permit during its term. However, before it takes any action to modify, suspend or revoke a permit, the Department shall, in accordance with applicable statutes and regulations, notify the permittee by mail of the facts or operational conduct that warrant the intended action and provide the permittee with the opportunity to demonstrate compliance with all lawful requirements for the retention of the effective permit.

Done this \_\_\_\_\_ day of \_\_\_\_\_, 2010.

Permit No.: 1000-00020-V0

Sincerely,

Cheryl Sonnier Nolan  
Assistant Secretary

CSN: BTN  
cc: EPA Region 6

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Perryville Gas Storage Project - Crowville Salt Dome**

**Agency Interest No.: 165335**

**Perryville Gas Storage, LLC**

**Winnsboro, Franklin Parish, Louisiana**

**I. Background**

Perryville Gas Storage, LLC proposes to construct and operate a natural gas compressor station and storage facility, the Perryville Gas Storage Project – Crowville Salt Dome, near Winnsboro, Franklin Parish. The facility will be operated under Part 70 operating permit 1000-00020-V0.

**II. Origin**

A permit application dated July 6, 2009, was submitted requesting a Part 70 operating permit. Additional information dated December 2, 2009, February 9, 2010 and February 18, 2010 was also received.

**III. Description**

Perryville Gas Storage Project - Crowville Salt Dome will receive natural gas via pipeline. The facility will compress and store natural gas in salt-dome caverns for short and long term storage. The withdrawal of natural gas from the caverns will be performed using the existing pressure within the cavern. Gas from the caverns will be routed to line heaters followed by dehydrators to remove the presence of water vapor absorbed into the gas as a result of storage. The equipment at the facility includes four compressor engines with catalyst oxidation systems, two glycol dehydration units with a thermal oxidizer for each, four line heaters, one emergency diesel generator, several insignificant storage tanks, and associated support equipment.

Estimated emissions from this facility in tons per year are as follows:

Pollutant	Proposed Emissions
PM <sub>10</sub>	11.74
SO <sub>2</sub>	0.44
NO <sub>x</sub>	98.54
CO	47.42
VOC	69.66
LAC 33:III Chapter 51 Regulated Toxic Air Pollutants	
Acetaldehyde	1.44
Acrolein	1.36
Benzene	1.44
Formaldehyde	12.20
Methanol	1.60
n-Hexane	0.09
Toluene	0.42

**AIR PERMIT BRIEFING SHEET  
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**Perryville Gas Storage Project - Crowville Salt Dome**

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**Perryville Gas Storage, LLC**

**Winnshoro, Franklin Parish, Louisiana**

Xylenes	0.12
Total	18.67
Other VOC	50.99

**IV. Type of Review**

This application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, NESHAP, and NSPS. PSD does not apply. Formaldehyde emissions are from natural gas fired engines. Therefore, formaldehyde emissions are exempt from the Louisiana Air Toxic Regulations. The facility is classified as a minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51. Formaldehyde emissions are above the Hazardous Air Pollutants (HAP) major source threshold of 10 tons per year. The station is considered a major source of HAP under the federal program.

**V. Credible Evidence**

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

**VI. Public Notice**

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in the ZZZ, ZZZ, on XXX, and was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List. The permit application, the proposed permit, and the Statement of Basis were submitted to the St. Landry Parish Library – ZZZ Branch. The proposed permit and the Statement of Basis were submitted to US EPA Region 6. All comments will be considered prior to a permit decision.

**AIR PERMIT BRIEFING SHEET  
AIR PERMITS DIVISION  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Perryville Gas Storage Project - Crowville Salt Dome  
Agency Interest No.: 165335  
Perryville Gas Storage, LLC  
Winnsboro, Franklin Parish, Louisiana**

**VII. Effects on Ambient Air**

Emissions were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. The proposed project did not require the applicant to model emissions.

**VIII. General Condition XVII Activities**

ID No.	Description	Emissions (tons/yr)		
		NOX	CO	VOC
	Blowdowns (80 times/yr)			0.20

**IX. Insignificant Activities (LAC 33:III.501.B.5)**

ID No.	Description	Capacity (gallons)	Citation
MS-325	Diesel Tank	540 gallons	A.3
MS-325B	Diesel Tank	540 gallons	A.3
MS-329	Diesel Tank	2,000 gallons	A.3
PC-279 A/B	Lube Oil Tank	720 gallons	A.3
PC-4271 A/B	Lube Oil Tank	856 gallons	A.3
MS-4213	Brine Tank	14,397 gallons	A.10
MS-350	Diesel Tank	300 gallons	A.3

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**PERRYVILLE GAS STORAGE PROJECT – CROWVILLE SALT DOME**  
**AGENCY INTEREST NO. 165335**  
**PERRYVILLE GAS STORAGE, LLC**  
**WINNSBORO, FRANKLIN PARISH, LOUISIANA**

**X. Applicable Louisiana and Federal Air Quality Requirements**

ID No.:	Description	LAC 33:III												LAC 33:III Chapter					
		509	2103	2107	2111	2113	2115	2116	2113	5▲	9	11	13	15	29	51*	52	56	59
EQT 0001	NGC-01 - Natural Gas Compressor -Caterpillar															1	1	3	
EQT 0002	NGC-02 - Natural Gas Compressor -Caterpillar															1	1	3	
EQT 0003	NGC-03 - Natural Gas Compressor -Caterpillar															1	1	3	
EQT 0004	NGC-04 - Natural Gas Compressor -Caterpillar															1	1	3	
EQT 0005	GDC-1- Glycol Dehydrator Still Column															1	1	3	
EQT 0006	GDC-2- Glycol Dehydrator Still Column															1	1	3	
EQT 0008	GDR-1 - Glycol Dehydrator Reboiler															1	1	3	
EQT 0009	GDR-2 - Glycol Dehydrator Reboiler															1	1	3	
EQT 0010	LH-1 - Line Heater															1	1	3	
EQT 0011	LH-2 - Line Heater															1	1	3	
EQT 0012	LH-3 - Line Heater															1	1	3	
EQT 0013	LH-4 - Line Heater															1	1	3	
EQT 0014	EEG-1 - Emergency Diesel Generator															1	1	3	
EQT 0016	TO-1 - Thermal Oxidizer No. 1															1	1	3	
EQT 0017	TO-1 - Thermal Oxidizer No. 2															1	1	3	
FUG 0001	FUG-01 - Fugitive Emissions															1	1	1	
UNF0001	All 165335 - Perryville Gas Storage Project-Crowville Salt Dome															1	1	3	

**KEY TO MATRIX**

- The regulations indicated above are State Only regulations.
- ▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**PERRYVILLE GAS STORAGE PROJECT - CROWNVILLE SALT DOME**  
**AGENCY INTEREST NO. 165335**  
**PERRYVILLE GAS STORAGE, LLC**  
**WINNSBORO, FRANKLIN PARISH, LOUISIANA**

**X. Applicable Louisiana and Federal Air Quality Requirements**

ID No.:	Description	40 CFR 60			40 CFR 61			40 CFR 63			40 CFR			
		A	Dc	Kb	I	J	M	A	F	Hhh	zzzz	S2	64	68
EQT 0001	NGC-01 - Natural Gas Compressor -Caterpillar	1						1					1	
EQT 0002	NGC-02 - Natural Gas Compressor -Caterpillar	1						1					1	
EQT 0003	NGC-03 - Natural Gas Compressor -Caterpillar	1						1					1	
EQT 0004	NGC-04 - Natural Gas Compressor -Caterpillar	1						1					1	
EQT 0005	GDC-1- Glycol Dehydrator Still Column												1	
EQT 0006	GDC-2- Glycol Dehydrator Still Column												1	
EQT 0008	GDR-1 - Glycol Dehydrator Reboiler													
EQT 0009	GDR-2 - Glycol Dehydrator Reboiler													
EQT 0010	LH-1 - Line Heater													
EQT 0011	LH-2 - Line Heater													
EQT 0012	LH-3 - Line Heater													
EQT 0013	LH-4 - Line Heater													
EQT 0014	EEG-1 - Emergency Diesel Generator	1			1								1	
EQT 0016	TO-1 - Thermal Oxidizer No. 1												1	
EQT 0017	TO-1 - Thermal Oxidizer No. 2												1	
FUG 0001	FUG-01 - Fugitive Emissions													
UNFO001	All 165335 - Perryville Gas Storage Project-Crownville Salt Dome							1					3	

## LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERRYVILLE GAS STORAGE PROJECT - CROWVILLE SALT DOME  
 AGENCY INTEREST NO. 165335  
 PERRYVILLE GAS STORAGE, LLC  
 WINNSBORO, FRANKLIN PARISH, LOUISIANA

## X. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60				40 CFR 61				40 CFR 63				40 CFR				
		A	Bc	Kb	III	III	A	F	J	M	A	F	MHH	2222	S2	S4	S8	S2
<b>KEY TO MATRIX</b>																		
1	- The regulations have applicable requirements which apply to this particular emission source.																	
	- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.																	
2	- The regulations have applicable requirements which apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.																	
3	- The regulations apply to this general type of emission source (i.e. vents, furnaces, and fugitives) but do not apply to this particular emission source.																	
	Blank - The regulations clearly do not apply to this type of emission source.																	

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**PERRYVILLE GAS STORAGE PROJECT – CROWVILLE SALT DOME**  
**AGENCY INTEREST NO. 165335**  
**PERRYVILLE GAS STORAGE, LLC**  
**WINNSBORO, FRANKLIN PARISH, LOUISIANA**

**XI. Explanation for Exemption Status or Non-Applicability of a Source**

ID No.	Requirement	Status	Citation	Explanation
EQT0001-EQT0004 EQT0008 - EQT0014 EQT0016 – EQT0017	LAC 33:III.Chapter 15	Does not apply	LAC 33:III.1502.A.3	SO2 emissions < 5 tons/year
UNF0001	LAC 33:III.Chapter 59 40 CFR Part 68	Does not apply	LAC 33:III.5907.A	Does not store or handle any subject materials more than their threshold quantities
The above table provides explanation for both the exemption status or non-applicability of a source cited by 2 or 3 in the matrix presented in Section X of this permit				

General Information

AI ID: 165335 Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome

Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

Also Known As:	ID	Name	User Group	Start Date
	1000-00020	CDS Number	CDS Number	08-03-2009
		Cardinal Gas Storage Partners LLC (parent Co)	Multimedia	08-03-2009
		Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome	Multimedia	08-03-2009
Physical Location:		on Hwy 860 15 Mi N of Winnsboro, LA 70000	Main Phone:	7133502500
Mailing Address:		Three Riverway Site 1350 Houston, TX 77056	Phone (Type)	
Related People:		Mailing Address	Relationship	
	David Hayden	Three Riverway Site 1350 Houston, TX 77056	7133502500 (WP)	Responsible Official for
	David Hayden	Three Riverway Site 1350 Houston, TX 77056	david.hayden@cardi	Air Permit Contact For
	David Hayden	Three Riverway Site 1350 Houston, TX 77056	7133502500 (WP)	Air Permit Contact For
	David Hayden	Three Riverway Site 1350 Houston, TX 77056	david.hayden@cardi	Responsible Official for
Related Organizations:		Name	Phone (Type)	Relationship
	Perryville Gas Storage LLC	Three Riverway Site 1350 Houston, TX 77056	7133502500 (WP)	Air Billing Party for
	Perryville Gas Storage LLC	Three Riverway Site 1350 Houston, TX 77056	7133502500 (WP)	Owns
	Perryville Gas Storage LLC	Three Riverway Site 1350 Houston, TX 77056	7133502500 (WP)	Operates

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Ms. Tommie Miliam, Permit Support Services Division, at (225) 219-3259 or email your changes to facupdate@la.gov.

**INVENTORIES**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

## Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
<b>Perryville Gas Storage</b>						
EQT 0001	NGC-1 - Natural Gas Compressor - Caterpillar		4735 horsepower	4735 horsepower		7308 hr/yr
EQT 0002	NGC-2 - Natural Gas Compressor - Caterpillar		4735 horsepower	4735 horsepower		7308 hr/yr
EQT 0003	NGC-3 - Natural Gas Compressor - Caterpillar		4735 horsepower	4735 horsepower		7308 hr/yr
EQT 0004	NGC-4 - Natural Gas Compressor - Caterpillar		4735 horsepower	4735 horsepower		7308 hr/yr
EQT 0005	GDC-1 - Dehydration Unit Still Column Vent			600 MM ft <sup>3</sup> /day		8760 hr/yr
EQT 0006	GDC-2 - Dehydration Unit Still Column Vent			600 MM ft <sup>3</sup> /day		8760 hr/yr
EQT 0008	GDR-1 - Dehydration Unit Reboiler		6.25 MM BTU/hr	6.25 MM BTU/hr		8760 hr/yr
EQT 0009	GDR-1 - Dehydration Unit Reboiler		6.25 MM BTU/hr	6.25 MM BTU/hr		8760 hr/yr
EQT 0010	LH-1 - Line Heater		45.32 MM BTU/hr	45.32 MM BTU/hr		8760 hr/yr
EQT 0011	LH-2 - Line Heater		45.32 MM BTU/hr	45.32 MM BTU/hr		8760 hr/yr
EQT 0012	LH-3 - Line Heater		45.32 MM BTU/hr	45.32 MM BTU/hr		8760 hr/yr
EQT 0013	LH-4 - Line Heater		45.32 MM BTU/hr	45.32 MM BTU/hr		8760 hr/yr
EQT 0014	EEG-1 - Emergency Diesel Generator		1500 horsepower	1500 horsepower		200 hr/yr
EQT 0016	TO-1 - Thermal Oxidizer		3 MM BTU/hr	3 MM BTU/hr		8760 hr/yr
EQT 0017	TO-2 - Thermal Oxidizer		3 MM BTU/hr	3 MM BTU/hr		8760 hr/yr
FUG 0001	FUG - Fugitive Emissions					8760 hr/yr
<b>Stack Information:</b>						
ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)
<b>Perryville Gas Storage</b>						
EQT 0001	NGC-1 - Natural Gas Compressor - Caterpillar	224.2	1.67			30
EQT 0002	NGC-2 - Natural Gas Compressor - Caterpillar	224.2	1.67			30
EQT 0003	NGC-3 - Natural Gas Compressor - Caterpillar	224.2	1.67			30
EQT 0004	NGC-4 - Natural Gas Compressor - Caterpillar	224.2	1.67			30
EQT 0008	GDR-1 - Dehydration Unit Reboiler	60	707	5		25
EQT 0009	GDR-1 - Dehydration Unit Reboiler	60	707	5		25
EQT 0010	LH-1 - Line Heater	80	3770	1		35
EQT 0011	LH-2 - Line Heater	80	3770	1		35
EQT 0012	LH-3 - Line Heater	80	3770	1		35
EQT 0013	LH-4 - Line Heater	80	3770	1		35
EQT 0014	EEG-1 - Emergency Diesel Generator	383	8100	.67		30
EQT 0016	TO-1 - Thermal Oxidizer	60	707	5		25
EQT 0017	TO-2 - Thermal Oxidizer	60	707	5		25

**INVENTORIES**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-Y0  
 Air - Title V Regular Permit Initial

**Relationships:**

ID	Description	Relationship	ID	Description
EQT 0005	GDC-1 - Dehydration Unit Still Column Vent	Controlled by	EQT 0016	TO-1 - Thermal Oxidizer
EQT 0006	GDC-2 - Dehydration Unit Still Column Vent	Controlled by	EQT 0017	TO-2 - Thermal Oxidizer

**Subject Item Groups:**

ID	Group Type	Group Description
CRG 0001	Common Requirements Group	NGC - Natural Gas Compressor Engines
CRG 0002	Common Requirements Group	HEATER - Reboilers and Heaters
UNF 0001	Unit or Facility Wide	UNF - Perryville Gas Storage

**Group Membership:**

ID	Description	Member of Groups
EOT 0001	NGC-1 - Natural Gas Compressor - Caterpillar	CRG00000000001
EOT 0002	NGC-2 - Natural Gas Compressor - Caterpillar	CRG0000000001
EOT 0003	NGC-3 - Natural Gas Compressor - Caterpillar	CRG0000000001
EOT 0004	NGC-4 - Natural Gas Compressor - Caterpillar	CRG0000000001
EOT 0008	GDR-1 - Dehydration Unit Reboiler	CRG0000000002
EOT 0009	GDR-1 - Dehydration Unit Reboiler	CRG0000000002
EOT 0010	LH-1 - Line Heater	CRG0000000002
EOT 0011	LH-2 - Line Heater	CRG0000000002
EOT 0012	LH-3 - Line Heater	CRG0000000002
EOT 0013	LH-4 - Line Heater	CRG0000000002

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

**Annual Maintenance Fee:**

Fee Number	Air Contaminant Source	Multiplier	Units Of Measure
1460	1460 Recip Nat Gas Comp (5,000 to 20,000 H.P.)	189.4	100 hp

**SIC Codes:**

4922	Natural gas transmission	UNF 001
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**EMISSION RATES FOR CRITERIA POLLUTANTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-Y0  
 Air - Title V Regular Permit Initial

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year												
<b>Perryville Gas Storage</b>															
EQT 0001 NGC-1	2.01	2.51	7.34	5.22	6.52	19.07	0.69	0.86	2.52	0.02	0.03	0.08	3.29	4.11	12.02
EQT 0002 NGC-2	2.01	2.51	7.34	5.22	6.52	19.07	0.69	0.86	2.52	0.02	0.03	0.08	3.29	4.11	12.02
EQT 0003 NGC-3	2.01	2.51	7.34	5.22	6.52	19.07	0.69	0.86	2.52	0.02	0.03	0.08	3.29	4.11	12.02
EQT 0004 NGC-4	2.01	2.51	7.34	5.22	6.52	19.07	0.69	0.86	2.52	0.02	0.03	0.08	3.29	4.11	12.02
EQT 0008 GDR-1	0.14	0.72	0.62	0.17	0.86	0.73	0.01	0.07	0.06	<0.01	<0.01	<0.01	0.15	0.75	0.64
EQT 0009 GDR-1	0.14	0.72	0.62	0.17	0.86	0.73	0.01	0.07	0.06	<0.01	<0.01	<0.01	0.15	0.75	0.64
EQT 0010 LH-1	0.93	5.23	4.05	1.10	6.23	4.83	0.08	0.47	0.37	<0.01	0.04	0.03	0.96	5.42	4.20
EQT 0011 LH-2	0.93	5.23	4.05	1.10	6.23	4.83	0.08	0.47	0.37	<0.01	0.04	0.03	0.96	5.42	4.20
EQT 0012 LH-3	0.93	5.23	4.05	1.10	6.23	4.83	0.08	0.47	0.37	<0.01	0.04	0.03	0.96	5.42	4.20
EQT 0013 LH-4	0.93	5.23	4.05	1.10	6.23	4.83	0.08	0.47	0.37	<0.01	0.04	0.03	0.96	5.42	4.20
EQT 0014 EEG-1	0.20	0.25	0.02	7.56	9.45	0.76	0.03	0.04	<0.01	0.02	<0.01	0.02	0.02	<0.01	<0.01
EQT 0016 TO-1	0.07	0.35	0.30	0.08	0.41	0.36	<0.01	0.03	0.03	<0.01	<0.01	<0.01	0.39	2.16	1.70
EQT 0017 TO-2	0.07	0.35	0.30	0.08	0.41	0.36	<0.01	0.03	0.03	<0.01	<0.01	<0.01	0.39	2.16	1.70
FUG 0001 FUG													0.02	0.03	0.10

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0001 NGC-1	Acetaldehyde	0.10	0.12	0.36
	Acrolein	0.09	0.12	0.34
	Benzene	0.06	0.07	0.21
	Formaldehyde	0.84	1.04	3.05
	Methanol	0.11	0.14	0.40
	Toluene	0.02	0.02	0.07
	Xylene (mixed isomers)	0.01	0.01	0.03
EQT 0002 NGC-2	Acetaldehyde	0.10	0.12	0.36
	Acrolein	0.09	0.12	0.34
	Benzene	0.06	0.07	0.21
	Formaldehyde	0.84	1.04	3.05
	Methanol	0.11	0.14	0.40
	Toluene	0.02	0.02	0.07
	Xylene (mixed isomers)	0.01	0.01	0.03
EQT 0003 NGC-3	Acetaldehyde	0.10	0.12	0.36
	Acrolein	0.09	0.12	0.34
	Benzene	0.06	0.07	0.21
	Formaldehyde	0.84	1.04	3.05
	Methanol	0.11	0.14	0.40
	Toluene	0.02	0.02	0.07
	Xylene (mixed isomers)	0.01	0.01	0.03
EQT 0004 NGC-4	Acetaldehyde	0.10	0.12	0.36
	Acrolein	0.09	0.12	0.34
	Benzene	0.06	0.07	0.21
	Formaldehyde	0.84	1.04	3.05
	Methanol	0.11	0.14	0.40
	Toluene	0.02	0.02	0.07
	Xylene (mixed isomers)	0.01	0.01	0.03
EQT 0014 EEG-1	Acetaldehyde	<0.01	<0.01	<0.01
	Acrolein	<0.01	<0.01	<0.01
	Benzene	<0.01	<0.01	<0.01
	Formaldehyde	<0.01	<0.01	<0.01
	Toluene	<0.01	<0.01	<0.01

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome

Activity Number: PER20090001

Permit Number: 1000-00020-V0

Air - Title V Regular Permit Initial

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EOT 0014 EEG-1	Xylene (mixed isomers)	<0.01	<0.01	<0.01
EOT 0016 TO-1	Benzene	0.07	0.40	0.30
	Toluene	0.02	0.09	0.07
	n-Hexane	<0.01	0.04	0.03
EOT 0017 TO-2	Benzene	0.07	0.40	0.30
	Toluene	0.02	0.09	0.07
	n-Hexane	<0.01	0.04	0.03
UNF 0001 UNF	Acetaldehyde			1.44
	Acrolein			1.36
	Benzene			1.44
	Formaldehyde			12.20
	Methanol			1.60
	Toluene			0.42
	Xylene (mixed isomers)			0.12
	n-Hexane			0.09

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote. Emission rates attributed to the UNF reflect the sum of the TAP/HAP limits of the individual emission points (or caps) under this permit, but do not constitute an emission cap.

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**EQT 0005 GDC-1 - Dehydration Unit Still Column Vent**

- 1 [40 CFR 63.1275(b)(1)(i)] Control air emissions by connecting the process vent to a control device or a combination of control devices through a closed-vent system.  
Subpart HHH. [40 CFR 63.1275(b)(1)(i)] Operate at all times when gases, vapors, and fumes are vented from the emissions unit or units through the closed-vent system to the control device, as required under 40 CFR 63.1275, except when maintenance or repair on a unit cannot be completed without a shutdown of the control device. Subpart HHH. [40 CFR 63.1281(d)(4)(i)] Demonstrate compliance with the monitoring requirements of 40 CFR 63.1283(d) according to the requirements of 40 CFR 63.1282(e) or (f), as applicable. Subpart HHH. [40 CFR 63.1281(d)(4)(ii)] Establish a site specific maximum or minimum monitoring parameter value (as appropriate) according to the requirements of 40 CFR 63.1283(d)(5)(i). Subpart HHH. [40 CFR 63.1282(e)(1)] Closed-vent system (joints, seam, or other connections that are permanently or semi-permanently sealed): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the specified in 40 CFR 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Submit inspection results with the Notification of Compliance Status Report as specified in 40 CFR 63.1285(d)(1) or (d)(2). Subpart HHH. [40 CFR 63.1283(c)(2)(i)(A)] Which Months: All Year Statistical Basis: None specified Calculate the daily average value for each monitored operating parameter for each operating day using the data recorded by the monitoring system. Subpart HHH. [40 CFR 63.1283(d)(4)] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in 40 CFR 63.1284(b) through (e). Subpart HHH. VOC, Total  $\geq$  85 % reduction using a control device. Demonstrate percent reduction using the methods found in LAC 33:III.2116.D. Which Months: All Year Statistical Basis: None specified Determine compliance with LAC 33:III.2116.B using the methods in LAC 33:III.2116.D.1-5, as appropriate. Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of the information specified in LAC 33:III.2116.F.1.
- 6 [40 CFR 63.1283(d)(4)]
- 7 [40 CFR 63.1284]
- 8 [LAC 33:III.2116.B.2]
- 9 [LAC 33:III.2116.D]
- 10 [LAC 33:III.2116.F.1]

**EQT 0006 GDC-2 - Dehydration Unit Still Column Vent**

- 11 [40 CFR 63.1275(b)(1)(i)] Control air emissions by connecting the process vent to a control device or a combination of control devices through a closed-vent system.  
Subpart HHH. [40 CFR 63.1275(b)(1)(i)] Operate at all times when gases, vapors, and fumes are vented from the emissions unit or units through the closed-vent system to the control device, as required under 40 CFR 63.1275, except when maintenance or repair on a unit cannot be completed without a shutdown of the control device. Subpart HHH. [40 CFR 63.1281(d)(4)(i)] Demonstrate compliance with the monitoring requirements of 40 CFR 63.1283(d) according to the requirements of 40 CFR 63.1282(e) or (f), as applicable. Subpart HHH. [40 CFR 63.1281(d)(4)(ii)] Establish a site specific maximum or minimum monitoring parameter value (as appropriate) according to the requirements of 40 CFR 63.1283(d)(5)(i). Subpart HHH. [40 CFR 63.1282(e)(1)]

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**EQT 0006 GDC-2 - Dehydration Unit Still Column Vent**

- Closed-vent system (joints, seam, or other connections that are permanently or semi-permanently sealed) VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the specified in 40 CFR 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Submit inspection results with the Notification of Compliance Status Report as specified in 40 CFR 63.1285(d)(1) or (d)(2). Subpart HHH. [40 CFR 63.1283(c)(2)(v)(A)]
- Which Months: All Year Statistical Basis: None specified
- Calculate the daily average value for each monitored operating parameter for each operating day using the data recorded by the monitoring system. Subpart HHH. [40 CFR 63.1283(d)(4)]
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in 40 CFR 63.1284(b) through (c). Subpart HHH.
- VOC, Total  $\geq$  85 % reduction using a control device. Demonstrate percent reduction using the methods found in LAC 33.II.2116.D.
- Which Months: All Year Statistical Basis: None specified
- Determine compliance with LAC 33.II.2116.B using the methods in LAC 33.II.2116.D.1.5, as appropriate.
- Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of the information specified in LAC 33.II.2116.F.1.

**EQT 0014 EEG-1 - Emergency Diesel Generator**

- Comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power. Subpart III. [40 CFR 60.4205(b)]
- Operate and maintain stationary CI ICE according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. Subpart III.
- Beginning October 1, 2007, use diesel fuel that meets the requirements of 40 CFR 80.510(a). Subpart III. [40 CFR 60.4207(a)]
- Beginning October 1, 2010, use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. Subpart III. [40 CFR 60.4207(b)]
- Operating time monitored by hour/time monitor continuously during operation. Install a non-resettable hour meter prior to startup of the engine. Subpart III. [40 CFR 60.4209(a)]
- Which Months: All Year Statistical Basis: None specified
- Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, only change those settings that are permitted by the manufacturer. Also meet the requirements of 40 CFR 89, 94 and/or 1068, as applicable. Subpart III. [40 CFR 60.4211(a)]
- Ensure engine is certified to the emission standards in 40 CFR 60.4204(b), or 40 CFR 60.4025(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. Install and configure according to the manufacturer's specifications. Subpart III. [40 CFR 60.4211(c)]
- Conduct performance tests according to 40 CFR 60.4212(a) through (d). Subpart III.
- Shall comply with the initial notification requirements of 40 CFR 63.6645(h). [40 CFR 63.6645(h)]

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**EQT 0016 TO-1 - Thermal Oxidizer**

- 30 [40 CFR 63.1275(b)(1)(i)] Design and operate in accordance with the requirements of 40 CFR 63.1281(d). Subpart HHH. [40 CFR 63.1275(b)(1)(i)]  
 Closed-vent system: Design and operate in accordance with the requirements of 40 CFR 63.1281(c). Subpart HHH. [40 CFR 63.1275(b)(1)]  
 Closed-vent system: Route all gases, vapors, and fumes emitted from the material in a HAP emissions unit to a control device that meets the requirements specified in 40 CFR 63.1281(d). Subpart HHH. [40 CFR 63.1281(c)(1)]  
 Closed-vent system: Design and operate with no detectable emissions, as determined by 40 CFR 63.1282(b). Subpart HHH. [40 CFR 63.1281(c)(2)]  
 Closed-vent system (bypass device): Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration. Subpart HHH. [40 CFR 63.1281(c)(3)(i)(B)]  
 Total Organic Compounds (TOC) or HAP >= 95 % reduction by weight or <= 20 ppmv on a dry basis corrected to 3 percent oxygen, as determined in accordance with the requirements of 40 CFR 63.1282(d); or Residence time >= 0.5 seconds at a minimum temperature of 760 degrees C. Subpart HHH. [40 CFR 63.1281(d)(1)(i)]  
 Which Months: All Year Statistical Basis: None specified  
 Operate at all times when gases, vapors, and fumes are vented from the emissions unit or units through the closed-vent system to the control device, as required under 40 CFR 63.1275, except when maintenance or repair on a unit cannot be completed without a shutdown of the control device. Subpart HHH. [40 CFR 63.1281(d)(4)(i)]  
 Demonstrate compliance with the monitoring requirements of 40 CFR 63.1283(d) according to the requirements of 40 CFR 63.1282(e) or (f), as applicable. Subpart HHH. [40 CFR 63.1281(d)(4)(ii)]  
 Demonstrate that the control device meets the requirements of 40 CFR 63.1281(d)(1) or (e)(3)(ii) by conducting a performance test. Use the test methods and procedures specified in 40 CFR 63.1282(d)(3)(i) through (d)(3)(iv). Submit the performance test results in the Notification of Compliance Status Report as required in 40 CFR 63.1285(d)(1)(ii). Subpart HHH. [40 CFR 63.1282(d)(3)]  
 Establish a site specific maximum or minimum monitoring parameter value (as appropriate) according to the requirements of 40 CFR 63.1283(d)(5)(i). Subpart HHH. [40 CFR 63.1282(e)(1)]  
 Calculate the daily average of the applicable monitored parameter in accordance with 40 CFR 63.1283(d)(4). Subpart HHH. [40 CFR 63.1282(e)(2)]  
 Closed-vent system (joints, seam, or other connections that are permanently or semi-permanently sealed): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the specified in 40 CFR 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Submit inspection results with the Notification of Compliance Status Report as specified in 40 CFR 63.1285(d)(1) or (d)(2). Subpart HHH. [40 CFR 63.1283(c)(2)(i)(A)]  
 Which Months: All Year Statistical Basis: None specified  
 Closed-vent system (joints, seam, or other connections that are permanently or semi-permanently sealed): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of component or connection repair or replacement or connection unsealing, to demonstrate that it operates with no detectable emissions. Use the procedures in 40 CFR 63.1282(b). Submit inspection results in the Periodic Report as specified in 40 CFR 63.1285(e)(2)(iii). Subpart HHH. [40 CFR 63.1283(c)(2)(i)(B)]  
 Which Months: All Year Statistical Basis: None specified

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**EQT 0016 TO-1 - Thermal Oxidizer**

- 43 [40 CFR 63.1283(c)(2)(ii)(B)] Closed-vent system (joints, seam, or other connections that are permanently or semi-permanently sealed): Equipment/operational data monitored by visual inspection/determination annually for defects that could result in air emissions. Submit inspection results in the Periodic Report as specified in 40 CFR 63.1285(e)(2)(ii). Subpart HHH. [40 CFR 63.1283(c)(2)(ii)(B)]
- Which Months: All Year Statistical Basis: None Specified
- Closed-vent system (components other than those in 40 CFR 63.1283(c)(2)(ii)): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures specified in 40 CFR 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Submit inspection results with the Notification of Compliance Status Report as specified in 40 CFR 63.1285(d)(1) or (d)(2). Subpart HHH. [40 CFR 63.1283(c)(2)(ii)(A)]
- Which Months: All Year Statistical Basis: None Specified
- Closed-vent system (components other than those in 40 CFR 63.1283(c)(2)(ii)): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually according to the procedures specified in 40 CFR 63.1282(b) to demonstrate that the components or connections operate with no detectable emissions. Submit inspection results in the Periodic Report as specified in 40 CFR 63.1285(e)(2)(ii). Subpart HHH. [40 CFR 63.1283(c)(2)(ii)(B)]
- Which Months: All Year Statistical Basis: None Specified
- Closed-vent system (components other than those in 40 CFR 63.1283(c)(2)(ii)): Equipment/operational data monitored by visual inspection/determination annually for defects that could result in air emissions. Submit inspection results in the Periodic Report as specified in 40 CFR 63.1285(e)(2)(ii). Subpart HHH. [40 CFR 63.1283(c)(2)(ii)(C)]
- Which Months: All Year Statistical Basis: None Specified
- Closed-vent system (bypass device): Seal or closure mechanism monitored by visual inspection/determination monthly to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device. Subpart HHH. [40 CFR 63.1283(c)(2)(ii)(B)]
- Which Months: All Year Statistical Basis: None Specified
- Closed-vent system: Make a first attempt at repair no later than 5 calendar days after a leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.1283(c)(4). Subpart HHH. [40 CFR 63.1283(c)(3)]
- Cover (unsafe-to-inspect): Determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.1283(c)(2)(i) or (c)(2)(ii). Subpart HHH. [40 CFR 63.1283(c)(5)(i)]
- Closed-vent system (unsafe-to-inspect): Determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.1283(c)(2)(i) or (c)(2)(ii). Subpart HHH. [40 CFR 63.1283(c)(5)(i)]
- Closed-vent system (unsafe-to-inspect): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. Subpart HHH. [40 CFR 63.1283(c)(5)(ii)]
- Which Months: All Year Statistical Basis: None Specified
- Cover (unsafe-to-inspect): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. Subpart HHH. [40 CFR 63.1283(c)(5)(ii)]
- Which Months: All Year Statistical Basis: None Specified

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**EQT 0016 TO-1 - Thermal Oxidizer**

- 53 [40 CFR 63.1283(c)(6)(i)] Cover (difficult-to-inspect): Determine that the equipment cannot be inspected without elevating the inspecting personnel more than two meters above a support surface. Subpart HHH. [40 CFR 63.1283(c)(6)(i)]
- 54 [40 CFR 63.1283(c)(6)(i)] Closed-vent system (difficult-to-inspect): Determine that the equipment cannot be inspected without elevating the inspecting personnel more than two meters above a support surface. Subpart HHH. [40 CFR 63.1283(c)(6)(i)]
- 55 [40 CFR 63.1283(c)(6)(ii)] Cover (difficult-to-inspect): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once every five years. Maintain a written plan that requires inspection of the equipment at least once every five years. Subpart HHH. [40 CFR 63.1283(c)(6)(ii)]
- Which Months: All Year Statistical Basis: None specified
- Closed-vent system (difficult-to-inspect): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once every five years. Maintain a written plan that requires inspection of the equipment at least once every five years. Subpart HHH. [40 CFR 63.1283(c)(6)(ii)]
- Which Months: All Year Statistical Basis: None specified
- Temperature monitored by temperature monitoring device continuously, as specified. Subpart HHH. [40 CFR 63.1283(d)(3)(i)(A)]
- Which Months: All Year Statistical Basis: None specified
- Temperature recordkeeping by electronic or hard copy continuously. Subpart HHH. [40 CFR 63.1283(d)(3)(i)(A)]
- Calculate the daily average value for each monitored operating parameter for each operating day using the data recorded by the monitoring system. Subpart HHH. [40 CFR 63.1283(d)(4)]
- Establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of 40 CFR 63.1281(d)(1) or 40 CFR 63.1281(e)(3)(ii). Establish operating parameter values as specified in 40 CFR 63.1283(d)(5)(i)(A) and (d)(5)(i)(B).
- Subpart HHH. [40 CFR 63.1283(d)(5)(i)]
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in 40 CFR 63.1284(b) through (e). Subpart HHH.
- Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: None specified
- Opacity >= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: Six-minute average
- VOC, Total >= 85 % reduction. Demonstrate percent reduction using the methods found in LAC 33:III.2116.D.
- Which Months: All Year Statistical Basis: None specified
- Presence of a flare monitored by visual inspection/determination daily.
- Which Months: All Year Statistical Basis: None specified
- Determine compliance with LAC 33:III.2116.B using the methods in LAC 33:III.2116.D.1-5, as appropriate.
- Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of the information specified in LAC 33:III.2116.F.1 and 2.
- 64 [LAC 33:III.2116.B.2]
- 65 [LAC 33:III.2116.B.3]
- 66 [LAC 33:III.2116.D]
- 67 [LAC 33:III.2116.F]

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**EQT 0017 TO-2 - Thermal Oxidizer**

- 68 [40 CFR 63.1275(b)(1)(i)] Design and operate in accordance with the requirements of 40 CFR 63.1281(d). Subpart HHH. [40 CFR 63.1275(b)(1)(i)]  
 69 [40 CFR 63.1275(b)(1)] Closed-vent system: Design and operate in accordance with the requirements of 40 CFR 63.1281(c). Subpart HHH. [40 CFR 63.1275(b)(1)]  
 70 [40 CFR 63.1281(c)(1)] Closed-vent system: Route all gases, vapors, and fumes emitted from the material in a HAP emissions unit to a control device that meets the requirements specified in 40 CFR 63.1281(d). Subpart HHH. [40 CFR 63.1281(c)(1)]  
 71 [40 CFR 63.1281(c)(2)] Closed-vent system: Design and operate with no detectable emissions, as determined by 40 CFR 63.1282(b). Subpart HHH. [40 CFR 63.1281(c)(2)]  
 72 [40 CFR 63.1281(c)(3)(i)(B)] Closed-vent system (bypass device): Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration. Subpart HHH. [40 CFR 63.1281(c)(3)(i)(B)]  
 73 [40 CFR 63.1281(d)(1)(i)] Total Organic Compounds (TOC) or HAP >= 95 % reduction by weight or <= 20 ppmv on a dry basis corrected to 3 percent oxygen, as determined in accordance with the requirements of 40 CFR 63.1282(d), or Residence time >= 0.5 seconds at a minimum temperature of 760 degrees C. Subpart HHH. [40 CFR 63.1281(d)(1)(i)]  
 Which Months: All Year Statistical Basis: None specified  
 Operate at all times when gases, vapors, and fumes are vented from the emissions unit or units through the closed-vent system to the control device, as required under 40 CFR 63.1275, except when maintenance or repair on a unit cannot be completed without a shutdown of the control device. Subpart HHH. [40 CFR 63.1281(d)(4)(i)]  
 Demonstrate compliance with the monitoring requirements of 40 CFR 63.1283(d) according to the requirements of 40 CFR 63.1282(e) or (f), as applicable. Subpart HHH. [40 CFR 63.1281(d)(4)(ii)]  
 Demonstrate that the control device meets the requirements of 40 CFR 63.1281(d)(1) or (e)(3)(ii) by conducting a performance test. Use the test methods and procedures specified in 40 CFR 63.1282(d)(3)(i) through (d)(3)(iv). Submit the performance test results in the Notification of Compliance Status Report as required in 40 CFR 63.1285(d)(1)(ii). Subpart HHH. [40 CFR 63.1282(d)(3)]  
 Establish a site specific maximum or minimum monitoring parameter value (as appropriate) according to the requirements of 40 CFR 63.1283(d)(5)(i). Subpart HHH. [40 CFR 63.1282(e)(1)]  
 Calculate the daily average of the applicable monitored parameter in accordance with 40 CFR 63.1283(d)(4). Subpart HHH. [40 CFR 63.1282(e)(2)]  
 Closed-vent system (joints, seam, or other connections that are permanently or semi-permanently sealed): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the specified in 40 CFR 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Submit inspection results with the Notification of Compliance Status Report as specified in 40 CFR 63.1285(d)(1) or (d)(2). Subpart HHH. [40 CFR 63.1283(c)(2)(i)(A)]  
 Which Months: All Year Statistical Basis: None specified  
 Closed-vent system (joints, seam, or other connections that are permanently or semi-permanently sealed): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 upon each occurrence of component or connection repair or replacement or connection unsealing, to demonstrate that it operates with no detectable emissions. Use the procedures in 40 CFR 63.1282(b). Submit inspection results in the Periodic Report as specified in 40 CFR 63.1285(e)(2)(ii). Subpart HHH. [40 CFR 63.1283(c)(2)(i)(B)]  
 Which Months: All Year Statistical Basis: None specified

**SPECIFIC REQUIREMENTS**

**AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome**  
**Activity Number: PER20090001**  
**Permit Number: 1000-00020-V0**  
**Air - Title V Regular Permit Initial**

**EQT 0017 TO-2 - Thermal Oxidizer**

81 [40 CFR 63.1283(c)(2)(i)(B)]	Closed-vent system (joints, seam, or other connections that are permanently or semi-permanently sealed): Equipment/operational data monitored by visual inspection/determination annually for defects that could result in air emissions. Submit inspection results in the Periodic Report as specified in 40 CFR 63.1285(e)(2)(iii). Subpart HHH. [40 CFR 63.1283(c)(2)(i)(B)]
82 [40 CFR 63.1283(c)(2)(ii)(A)]	Which Months: All Year Statistical Basis: None specified Closed-vent system (components other than those in 40 CFR 63.1283(c)(2)(i)): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once initially according to the procedures specified in 40 CFR 63.1282(b) to demonstrate that the closed-vent system operates with no detectable emissions. Submit inspection results with the Notification of Compliance Status Report as specified in 40 CFR 63.1285(d)(1) or (d)(2). Subpart HHH. [40 CFR 63.1283(c)(2)(ii)(A)]
83 [40 CFR 63.1283(c)(2)(ii)(B)]	Which Months: All Year Statistical Basis: None specified Closed-vent system (components other than those in 40 CFR 63.1283(c)(2)(i)): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 annually according to the procedures specified in 40 CFR 63.1282(b) to demonstrate that the components or connections operate with no detectable emissions. Submit inspection results in the Periodic Report as specified in 40 CFR 63.1285(e)(2)(iii). Subpart HHH. [40 CFR 63.1283(c)(2)(ii)(B)]
84 [40 CFR 63.1283(c)(2)(ii)(C)]	Which Months: All Year Statistical Basis: None specified Closed-vent system (components other than those in 40 CFR 63.1283(c)(2)(i)): Equipment/operational data monitored by visual inspection/determination annually for defects that could result in air emissions. Submit inspection results in the Periodic Report as specified in 40 CFR 63.1285(e)(2)(iii). Subpart HHH. [40 CFR 63.1283(c)(2)(ii)(C)]
85 [40 CFR 63.1283(c)(2)(iii)(B)]	Which Months: All Year Statistical Basis: None specified Closed-vent system (bypass device): Seal or closure mechanism monitored by visual inspection/determination monthly to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device. Subpart HHH. [40 CFR 63.1283(c)(2)(iii)(B)]
86 [40 CFR 63.1283(c)(3)]	Which Months: All Year Statistical Basis: None specified Closed-vent system: Make a first attempt at repair no later than 5 calendar days after a leak is detected, and complete repairs no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 63.1283(c)(4). Subpart HHH. [40 CFR 63.1283(c)(3)]
87 [40 CFR 63.1283(c)(5)(i)]	Cover (unsafe-to-inspect): Determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.1283(c)(2)(i) or (c)(2)(ii). Subpart HHH. [40 CFR 63.1283(c)(5)(i)]
88 [40 CFR 63.1283(c)(5)(i)]	Closed-vent system (unsafe-to-inspect): Determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 63.1283(c)(2)(i) or (c)(2)(ii). Subpart HHH. [40 CFR 63.1283(c)(5)(i)]
89 [40 CFR 63.1283(c)(5)(ii)]	Closed-vent system (unsafe-to-inspect): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. Subpart HHH. [40 CFR 63.1283(c)(5)(ii)]
90 [40 CFR 63.1283(c)(5)(ii)]	Which Months: All Year Statistical Basis: None specified Cover (unsafe-to-inspect): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 at the regulation's specified frequency. Maintain a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. Subpart HHH. [40 CFR 63.1283(c)(5)(ii)]

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
 Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**EQT 0017 TO-2 - Thermal Oxidizer**

- 91 [40 CFR 63.1283(c)(6)(i)] Cover (difficult-to-inspect): Determine that the equipment cannot be inspected without elevating the inspecting personnel more than two meters above a support surface. Subpart HHH. [40 CFR 63.1283(c)(6)(i)]
- 92 [40 CFR 63.1283(c)(6)(i)] Closed-vent system (difficult-to-inspect): Determine that the equipment cannot be inspected without elevating the inspecting personnel more than two meters above a support surface. Subpart HHH. [40 CFR 63.1283(c)(6)(i)]
- 93 [40 CFR 63.1283(c)(6)(ii)] Cover (difficult-to-inspect): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once every five years. Maintain a written plan that requires inspection of the equipment at least once every five years. Subpart HHH. [40 CFR 63.1283(c)(6)(ii)]
- 94 [40 CFR 63.1283(c)(6)(ii)] Which Months: All Year Statistical Basis: None specified Closed-vent system (difficult-to-inspect): VOC, Total monitored by 40 CFR 60, Appendix A, Method 21 once every five years. Maintain a written plan that requires inspection of the equipment at least once every five years. Subpart HHH. [40 CFR 63.1283(c)(6)(ii)]
- 95 [40 CFR 63.1283(d)(3)(i)(A)] Which Months: All Year Statistical Basis: None specified Temperature monitored by temperature monitoring device continuously, as specified. Subpart HHH. [40 CFR 63.1283(d)(3)(i)(A)]
- 96 [40 CFR 63.1283(d)(3)(i)(A)] Which Months: All Year Statistical Basis: None specified Temperature recordkeeping by electronic or hard copy continuously. Subpart HHH. [40 CFR 63.1283(d)(3)(i)(A)]
- 97 [40 CFR 63.1283(d)(4)] Calculate the daily average value for each monitored operating parameter for each operating day using the data recorded by the monitoring system. Subpart HHH. [40 CFR 63.1283(d)(4)]
- 98 [40 CFR 63.1283(d)(5)(i)] Establish a minimum operating parameter value or a maximum operating parameter value, as appropriate for the control device, to define the conditions at which the control device must be operated to continuously achieve the applicable performance requirements of 40 CFR 63.1281(d)(1) or 40 CFR 63.1281(c)(3)(ii). Establish operating parameter values as specified in 40 CFR 63.1283(d)(5)(i)(A) and (d)(5)(i)(B). Subpart HHH. [40 CFR 63.1283(d)(5)(i)]
- 99 [40 CFR 63.1284] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain the records specified in 40 CFR 63.1284(b) through (e). Subpart HHH.
- 100 [LAC 33:III.21.6.B.2] VOC, Total > 85 % reduction. Demonstrate percent reduction using the methods found in LAC 33:III.2116.D.
- 101 [LAC 33:III.21.6.B.3] Which Months: All Year Statistical Basis: None specified Presence of a flame monitored by visual inspection/determination daily.
- 102 [LAC 33:III.21.6.D] Determine compliance with LAC 33:III.2116.B using the methods in LAC 33:III.2116.D.1-5, as appropriate.
- 103 [LAC 33:III.2116.F] Equipment/operational data recordkeeping by electronic or hard copy upon occurrence of event. Keep records of the information specified in LAC 33:III.2116.F.1 and 2.

**FUG 0001 FUG - Fugitive Emissions**

- 104 [LAC 33:III.2111] Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.

**CRG 0001 NGC - Natural Gas Compressor Engines**

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome  
**Activity Number:** PER20090001  
**Permit Number:** 1000-00020-V0  
**Air - Title V Regular Permit Initial**

**CRG 0001 NGC - Natural Gas Compressor Engines**

Group Members: EQT 0001EQT 0002EQT 0003EQT 0004

- 105 [40 CFR 60.4233(e)] (Excluding formaldehyde) VOC, Total  $\leq 1.0 \text{ g/BHP-hr}$  (0.0022 lb/HP-hr; 86 ppmvd at 15% O<sub>2</sub>). Subpart JJJJ. [40 CFR 60.4233(e)] Which Months: All Year Statistical Basis: None specified Carbon monoxide  $\leq 4.0 \text{ g/BHP-hr}$  (0.0088 lb/HP-hr; 540 ppmvd at 15% O<sub>2</sub>). Subpart JJJJ. [40 CFR 60.4233(e)] Which Months: All Year Statistical Basis: None specified Nitrogen oxides  $\leq 2.0 \text{ g/BHP-hr}$  (0.0044 lb/HP-hr; 160 ppmvd at 15% O<sub>2</sub>). Subpart JJJJ. [40 CFR 60.4233(e)] Which Months: All Year Statistical Basis: None specified Operate and maintain stationary SI ICE to achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. Subpart JJJJ.
- Ensure that the engine is maintained and operated to the extent practicable in a manner consistent with good air pollution control practice for minimizing emissions. Subpart JJJJ. [40 CFR 60.4243(b)(2)] Conduct an initial performance test. Conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance, if the engine is greater than 500 HP. Subpart JJJJ. [40 CFR 60.4243(b)(2)] Demonstrate compliance according to the emission standards specified in 40 CFR 60.4233(e), the requirements specified in 40 CFR 60.4244, as applicable, and the requirements specified in 40 CFR 60.4243(b)(2)(i) and (b)(2)(ii), as applicable. Subpart JJJJ. [40 CFR 60.4243(b)(2)] Operate using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations. Keep records of such use. If propane is used for more than 100 hours per year and the engine is not certified to the emission standards when using propane, conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. Subpart JJJJ. [40 CFR 60.4243(e)] Air-to-fuel ratio controller: Maintain and operate appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. Subpart JJJJ. [40 CFR 60.4243(e)] Conduct performance tests by following the procedures in 40 CFR 60.4244(a) through (g). Subpart JJJJ.
- Equipment/operational data recordkeeping by electronic or hard copy at the approved frequency. Keep records of the information in 40 CFR 60.4245(a)(1) through (a)(4). Subpart JJJJ. [40 CFR 60.4245(a)] Submit an initial notification as required in 40 CFR 60.4245(c)(1). Include the information in 40 CFR 60.4245(c)(1) through (c)(5). Subpart JJJJ. [40 CFR 60.4245(c)] Submit performance test results: Due within 60 days after each test conducted according to 40 CFR 60.4244 has been completed. Subpart JJJJ. [40 CFR 60.4245(d)] Operate and maintain in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during startup, shutdown, and malfunction. Subpart ZZZZ. [40 CFR 63.6605(b)] Conduct subsequent performance tests semiannually. Subpart ZZZZ.
- Conduct each applicable performance test in 40 CFR 63 Subpart ZZZZ Tables 3 and 4. Subpart ZZZZ. [40 CFR 63.6620(a)] Conduct each performance test according to the requirements in 40 CFR 63.7(e)(1) and under the specific conditions in 40 CFR 63 Subpart ZZZZ Table 4. Subpart ZZZZ. [40 CFR 63.6620(b)] Determine compliance with the percent reduction requirement using equation 1 in 40 CFR 63.6620. Subpart ZZZZ. [40 CFR 63.6620(e)]

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome

Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**CRG 0001 NGC - Natural Gas Compressor Engines**

- 123 [40 CFR 63.6620(i)] Determine the engine percent load during a performance test by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. Subpart ZZZZ. [40 CFR 63.6620(i)]
- Include a written report of the average percent load determination in the notification of compliance status. Include the following information: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, provide the model number of the measurement device, and an estimate of its accuracy in percentage of true value. Subpart ZZZZ. [40 CFR 63.6620(i)]
- 124 [40 CFR 63.6620(i)] Demonstrate initial compliance with each applicable emission and operating limitation according to 40 CFR 63 Subpart ZZZZ Table 5. Subpart ZZZZ. [40 CFR 63.6630(a)] Demonstrate continuous compliance with each applicable emission limitation and operating limitation in 40 CFR 63 Subpart ZZZZ Tables 1a and 1b and Tables 2a and 2b according to methods specified in 40 CFR 63 Subpart ZZZZ. Table 6. Subpart ZZZZ. [40 CFR 63.6640(a)]
- Conduct a performance test to demonstrate that the required emission limitation applicable are being met, if the values of the operating parameters are reestablished. Subpart ZZZZ. [40 CFR 63.6640(b)]
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.6655(a) through (d), as applicable. Subpart ZZZZ.
- Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: None specified
- Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: Six-minute average

**CRG 0002 HEATER • Reboilers and Heaters**

Group Members: EQT 0008EQT 0009EQT 0010EQT 0011EQT 0012EQT 0013

- 131 [LAC 33.III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: None specified
- Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: None specified

**UNF 0001 UNF - Perryville Gas Storage**

**SPECIFIC REQUIREMENTS**

AI ID: 165335 - Perryville Gas Storage LLC - Perryville Gas Storage Project - Crowville Salt Dome

Activity Number: PER20090001  
 Permit Number: 1000-00020-V0  
 Air - Title V Regular Permit Initial

**UNF 0001 UNF - Perryville Gas Storage**

- 133 [40 CFR 60.] All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A.  
 134 [40 CFR 63.] All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A.  
 135 [LAC 33:III.1103] Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited.  
 136 [LAC 33:III.1109.B] Outdoor burning of waste material or other combustible material is prohibited.  
 137 [LAC 33:III.1303.B] Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited.  
 138 [LAC 33:III.2113.A] Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5.  
 139 [LAC 33:III.219] Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.  
 140 [LAC 33:III.535] Comply with the Part 70 General Conditions as set forth in LAC 33:III.535 and the Louisiana General Conditions as set forth in LAC 33:III.537.  
 [LAC 33:III.535, LAC 33:III.537]  
 141 [LAC 33:III.5611.A] Submit standby plan for the reduction or elimination of emissions during an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency: Due within 30 days after requested by the administrative authority.  
 142 [LAC 33:III.5611.B] During an Air Pollution Alert, Air Pollution Warning or Air Pollution Emergency, make the standby plan available on the premises to any person authorized by the department to enforce these regulations.  
 143 [LAC 33:III.919.D] Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D.